

Amendment to 10/765081

Responsive to Office Action mailed 28 September 2005

Amendment filed on 28 December 2005.

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Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A position sensor comprising a substrate covered by a membrane and a plurality of pressure sensors on the substrate, the membrane comprising at least first and second areas separated by at least one divider, wherein a force applied to the first area causes substantially no response in those of the pressure sensors underlying the second area
wherein the membrane has a stiffness which varies with position on the membrane.
2. (Original) The position sensor according to claim 1, wherein the at least one divider comprises a slot in the membrane.
3. (Original) The position sensor according to claim 1, wherein the at least one divider comprises a region of the membrane attached to the substrate.
4. (Canceled)
5. (Currently Amended) The position sensor according to claim 4 1 wherein the membrane comprises a plurality of first areas wherein the stiffness of the membrane is at least a first stiffness and a second area between two of the plurality of first areas wherein the membrane has a stiffness less than the first stiffness.

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6. (Currently Amended) The position sensor according to claim 4 1 wherein the membrane comprises a plurality of first areas wherein the stiffness of the membrane does not exceed a first stiffness and a second area between two of the plurality of first areas wherein the membrane has a stiffness of at least the first stiffness.
7. (Original) The position sensor according to claim 1, wherein the substrate comprises a plurality of cavities and the at least one divider comprises at least one portion of the membrane attached to the substrate in a region between two of the plurality of cavities.
8. (Original) The position sensor according to claim 1, wherein the membrane is separated from the substrate except in at least one region of the membrane wherein the membrane is in contact with the substrate.
9. (Original) The position sensor according to claim 1, wherein the membrane comprises protrusions, each protrusion positioned to contact a pressure sensor of the plurality of pressure sensors.
10. (Original) The position sensor according to claim 2, wherein the membrane comprises protrusions, each protrusion positioned to contact a pressure sensor of the plurality of pressure sensors.
11. (Original) The position sensor according to claim 3, wherein the membrane comprises protrusions, each protrusion positioned to contact a pressure sensor of the plurality of pressure sensors.

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12. (Original) The position sensor according to claim 1 wherein the first and second areas are arranged in a non-regular array.
13. (Original) The position sensor according to claim 1 wherein the first and second areas are arranged in a regular array.
14. (Currently Amended) The position sensor according to claim 1, wherein A position sensor comprising a substrate covered by a membrane and a plurality of pressure sensors on the substrate, the membrane comprising at least first and second areas separated by at least one divider, wherein a force applied to the first area causes substantially no response in those of the pressure sensors underlying the second area and the at least one divider comprises a weakened portion of the membrane.
- 15 to 22 (Canceled).
23. (New) The position sensor according to claim 14, wherein the membrane is separated from the substrate except in at least one region of the membrane wherein the membrane is in contact with the substrate.
24. (New) The position sensor according to claim 14, wherein the membrane comprises protrusions, each protrusion positioned to contact a pressure sensor of the plurality of pressure sensors.
25. (New) The position sensor according to claim 14 wherein the first and second areas are arranged in a non-regular array.

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26. (New) The position sensor according to claim 14 wherein the first and second areas are arranged in a regular array.
27. (New) The position sensor according to claim 14 wherein the first and second areas comprise one or more of a rectangular, triangular, or truncated triangular area.